UNITED STATES PATENT AND TRADEMARK OFFICE

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/568,270	WU, YAJUAN
	Examiner	Art Unit	
	QUAN M. HUA	4146	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10/20/2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *10/16/2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a)☒ All　b)☐ Some * c)☐ None of:

　　　　1.☒ Certified copies of the priority documents have been received.

　　　　2.☐ Certified copies of the priority documents have been received in Application No. _____.

　　　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
　　Paper No(s)/Mail Date *6/26/2008, 10/22/2007, 05/31/2007, and 10/16/2006*.

4) ☐ Interview Summary (PTO-413)
　　Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____ .

DETAILED ACTION

1.   Claims 1-8 are presented for examination.

Priority

2.   Acknowledgment is made of applicant's claim for foreign priority under 35

U.S.C. 119(a)-(d).

Information Disclosure Statement

3.   The information disclosure statements (IDS) submitted on 10/16/2006,

05/31/2007, 10/22/2007 and 06/26/2008 are in compliance with the provisions of

37 CFR 1.97. Accordingly, the information disclosure statements are considered

by the examiner.

Claim Objections

4.   Claim 2 is objected to because of the following informalities: Line 2

recites: "*and the definition **f or** Cause Values*". Appropriate correction is

required.

Claim Rejections - 35 USC § 112

5.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

6.   Claims **1, 2, and 5** are rejected under 35 U.S.C. 112, second paragraph,

as being indefinite for failing to particularly point out and distinctly claim the

subject matter which applicant regards as the invention.

7.   **Claim 1** recites the limitations "the GSN" in Line 4, "the version number" in

Line 7, and "the processing result" in Line 8. There is insufficient antecedent

basis for these limitations in the claim.

8.   **Claim 2** recites the limitation "the UE" in Line 5. There is insufficient

antecedent basis for this limitation in the claim.

9.   **Claim 5** recites the limitations "the message header" in Line 3, "the

existing descriptions" and "the specifications" in (2g) Line 3. There is insufficient

antecedent basis for these limitations in the claim.

Claim Rejections - 35 USC § 103

10.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for

all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described
> as set forth in section 102 of this title, if the differences between the subject matter sought to
> be patented and the prior art are such that the subject matter as a whole would have been
> obvious at the time the invention was made to a person having ordinary skill in the art to which
> said subject matter pertains. Patentability shall not be negatived by the manner in which the
> invention was made.

11.   Claims **1, 2, 5, and 6** rejected under 35 U.S.C. 103(a) as being

unpatentable over 3GPP- TS 29.060 v3.7.0 (2000-12) by 3GPP Release 1999

Organizational Partners, hereafter 3GPP Release 1999.

As to Claim 1:

*A **method for processing Create Packet Data Protocol (PDP) Context***

***Request**, comprising:*

*1) **storing Cause values of different versions** as well as **definitions** for*

*all the **Cause values in the GSN** (GPRS Support Node) **receiving** Create*

PDP Context Request messages;

Regarding the limitation above, see at least 3GPP Release 1999, Page 19, Section 7.3.2, and Lines 1 – 22. "*the GSN (GPRS Support Node) receiving Create PDP Context Request messages*" read as "GGSN". Since the receiving node GGSN responds to the sending node SGSN with a message containing a Cause value, it is obvious to one of ordinary skill in the art that a list of predetermined Cause values have been stored in the receiving node GGSN prior to receiving the Create PDP Context Request Message.

2) *after receiving the Create PDP Context Request, the GSN checking the version number, performing internal processing, and filling a Cause value of the identical version in Create PDP Context Response according to the processing result and the version number of the Create PDP Context Request*;

Regarding the limitation "*after receiving the Create PDP Context Request, the GSN checking the version number*", see at least 3GPP Release 1999, Page 12, Section 6 - GTP Header, Lines 12-16 and further Page 76, Section 11.1.1, Lines 5-6. As GTP Header contains a field indicating the version number, it is obvious to one of ordinary skill in the art, at the time the invention is made, that the receiving node GGSN has mechanism used for checking version number.

Regarding the limitation "performing internal processing", see at least 3GPP Release 1999, page 19, section 7.3.2, Lines 23-26 which discloses the receiving node doing analysis to determine which Cause

value to fill in order to reflect the current resource status at the receiving

node. Such step is an example of internal processing.

Regarding the limitation *"filling a Cause value of the identical*

version in Create PDP Context Response according to the processing

result and the version number of the Create PDP Context Request ". See

at least 3GPP Release 1999, page 19, section 7.3.2, Lines 1-26. See

Lines 4-5 in the same section for the limitation "*according to processing*

result". See also Page 12, Section 6 - GTP Header, Lines 12-16 and

further Page 76, Section 11.1.1, Lines 5-6 . As the version number of the

message is to be determined by the receiving node, it is obvious to one of

ordinary skill in the art, at the time the invention is made, that the receiving

node is to response with cause values as listed in page 19, section 7.3.2,

Lines 1-26 that are appropriated with the determined version.

3) *Encapsulating the Create PDP Context Response* , and *returning it* to

the sender of the Create PDP Context Request.

Regarding this limitation, see 3GPP Release 1999, page 19, section 7.5.2,

Lines 1-3. "SGSN" read as "the sender". As to the limitation,

"encapsulating the Create PDP context response", it is obvious to one of

ordinary skill in the art that a message in a communication network is to

be encapsulated in appropriate format in order to be sent to destinations.

As to Claim 2:

- *The processing method according to claim 1, wherein the different versions comprise the **GTPv0 version** and **GTPv1** version*; see at least 3GPP Release 1999, Page 12, Section 6 - GTP Header, Lines 12-16 and further Page 76, Section 11.1.1, Lines 5-6.

- *and <u>the definition for Cause values in the GTPv1 version</u> includes at least the following descriptions*:

  a) "All dynamic PDP addresses are occupied" indicates that no free dynamic PDP address is available in the GSN which can be allocated to the UE (User Equipment) initiating an activation;

  See at least 3GPP Release 1999, Page 19, and Lines 8.

  b) "<u>No memory is available</u>" indicates that no enough memory is available in the GSN to support the activation; See at least 3GPP Release 1999, Page 19, Lines 9.

  c) "<u>No resources available</u>" indicates that some kinds of resources have been used up temporarily and the activation can not be supported. See at least 3GPP Release 1999, Page 19, Lines 7 and Line 23-24.

As to Claim 5:

The processing method according to claim 1, wherein the GSN comprises a <u>Gateway GPRS Supporting Node (GGSN) or a Serving GPRS Support Node (SGSN)</u>.

See 3GPP Release 1999, Page 19, Line 1.

As to Claim 6:

The processing method according to claim 2 wherein the GSN comprises a Gateway GPRS Supporting Node (GGSN) or a Serving GPRS Support Node (SGSN).

See 3GPP Release 1999, Page 19, Line 1.

12.   Claims **3, 4, 7 and 8** are rejected under 35 U.S.C. 103(a) as being unpatentable over 3GPP Release 1999 - TS 29.060 v3.7.0 (2000-12) by 3GPP Release 1999 Organizational Partners, hereafter 3GPP Release 1999 in view of 3GPP– TS 09.60 V6.10.1 (Release 1997), here after E3GPP RELEASE 1997.

As to Claim 3:

The processing method according to claim 1, wherein the Step 2) comprises:

2a)   after receiving the Create PDP Context Request message, the GSN checking the version number of the message according to the message header thereof, see at least 3GPP Release 1999, Page 12, Section 6 - GTP Header, Lines 12-16 and further Page 76, Section 11.1.1, Lines 5-6.

if it is the GTPv1 version, performing Steps 2b)~2g) only; otherwise, performing Steps 2h).about.2k) only;

2b)   the GSN performing internal processing and getting a processing

result;

See at least 3GPP Release 1999, page 19, section 7.3.2, Lines 1-

5.

2c)   *if the processing result is that the GSN has created a PDP context*

successfully, the Cause value is set as "Request Accepted";

See at least 3GPP Release 1999, page 19, section 7.3.2, Lines 4-

5.

2d)   if the processing result is that the GSN fails to create a PDP context

because no free dynamic PDP address is available, the Cause value is set

as "All dynamic PDP addresses are occupied";

See at least 3GPP Release 1999, page 19, section 7.3.2, Lines 4-

5, and Line 8. While the Cause Value "No resources available" also refers

to the lack of unoccupied PDP addresses, however, 3GPP Release 1999

also recites a specific Cause Value "All dynamic PDP addresses are

occupied" to reflect that all dynamic PDP addresses are occupied. Thus it

is obvious to one of ordinary skill in the art that using the cause value "All

dynamic PDP addresses are occupied" will accurately reflect the status of

the receiving node, as opposed to the general statement of "No resources

available".

2e)   if the processing result is that the GSN fails to create a PDP

context because there is no enough memory available, the Cause value is

set as "No memory is available";

See at least 3GPP Release 1999, page 19, section 7.3.2, Lines 4-

5.

2f)   if the processing result is that the GSN fails to create a PDP context

because of lack of resources, the Cause value is set as "No resources

available";

See at least 3GPP Release 1999, page 19, section 7.3.2, Lines 7

and 23.

2g)   if the processing result is that the GSN fails to create a PDP context

due to reasons other than the above, the Cause value is set according to

the existing descriptions in the specifications of the GTPv1 version;

See 3GPP Release 1999, page 19, section 7.3.2, Lines 1- 22.

Regarding limitation *"otherwise, performing Steps 2h) ~2k) only"*. See at

least 3GPP Release 1999, Page 76, section 11.1.1, Lines 5-6. 3GPP

Release 1999 teaches limitations as applied above does not specifically

disclose steps 2h) to 2k) in details. 3GPP RELEASE 1997 however

teaches details of steps 2h) to 2j) as applied above. Thus it would have

been obvious to one of ordinary skill in the art to combine 3GPP Release

1999 and 3GPP RELEASE 1997 as, 3GPP Release 1999 stated that the

receiving GSN will fall back to version 0 when appropriate (Page 76,

section 11.1.1, Lines 5-6), and knowledge regarding GTPv0's specification
is known widely in the art at the time 3GPP RELEASE 1999 is made.

    2h)   *the GSN performing internal processing and getting a*
processing result; See at least 3GPP Release 1999, page 19, section
7.3.2, Lines 23-26 which discloses the receiving node doing analysis to
determine which Cause value to fill in order to reflect the current resource
status at the receiving node. Such step is an example of internal
processing.

2i) if the processing result is that the GSN has created a PDP context
successfully, the Cause value is set as "Request Accepted";
Release 1999 teaches limitations as applied above does not specifically
disclose step 2i) in details. 3GPP RELEASE 1997 however teaches
details of step 2i) as above. See at least 3GPP RELEASE 1997, page 17,
section 7.5.2, Lines 4-5. 3GPP. Thus it would have been obvious to one
of ordinary skill in the art to combine 3GPP Release 1999 and 3GPP
RELEASE 1997 as, 3GPP Release 1999 stated that the receiving GSN
will fall back to version 0 when appropriate (Page 76, section 11.1.1, Lines
5-6), and knowledge regarding GTPv0's specification is known widely in
the art at the time 3GPP RELEASE 1999 is made.

2j)   if the processing result is that the GSN fails to create a PDP context

because no free dynamic PDP address is available, or there is no enough

memory available, or because of lack of other resources, the Cause value

is set as "No resources available";

3GPP Release 1999 teaches limitations as applied above does not

specifically disclose step 2j) in details. 3GPP RELEASE 1997 however

teaches details of step 2j). See 3GPP RELEASE 1997, page 17, section

7.5.2, Lines 7 and 16. Thus it would have been obvious to one of ordinary

skill in the art to combine 3GPP Release 1999 and 3GPP RELEASE 1997

as, 3GPP Release 1999 stated that the receiving GSN will fall back to

version 0 when appropriate (Page 76, section 11.1.1, Lines 5-6), and

knowledge regarding GTPv0's specification is known widely in the art at

the time 3GPP RELEASE 1999 is made.

2k)   if the processing result is that the GSN fails to create a PDP context

due to reasons other than the above, the Cause value is set according to

the existing descriptions in the specifications of the GTPv0 version.

3GPP Release 1999 teaches limitations as applied above does not

specifically disclose step 2k) in details. 3GPP RELEASE 1997 however

teaches details of step 2k). See 3GPP RELEASE 1997, page 17, section

7.5.2, Lines 7 and 16. Thus it would have been obvious to one of ordinary

skill in the art to combine 3GPP Release 1999 and 3GPP RELEASE 1997

as, 3GPP Release 1999 stated that the receiving GSN will fall back to

version 0 when appropriate (Page 76, section 11.1.1, Lines 5-6), and

knowledge regarding GTPv0's specification is known widely in the art at

the time 3GPP RELEASE 1999 is made.

As to Claim 4:

The processing method according to claim 1, wherein the Step 2)

comprises:

- *2A) the GSN receiving the Create PDP Context Request*

  message; See 3GPP RELEASE 1999, Page 19, Section

  7.3.2, Lines 1.

- *2B) the GSN performing internal processing and getting a*

  processing result; see at least 3GPP Release 1999, page

  19, section 7.3.2, Lines 23-26 which discloses the receiving

  node does analysis to determine which Cause value to fill in

  order to reflect the current status. Such step is an example

  of internal processing.

- *2C) if the processing result is that the GSN has created a*

  PDP context successfully, the Cause value is set as

  "Request Accepted"; See 3GPP RELEASE 1999, Page 19,

  Section 7.3.2, Lines 4-5.

- *2D) if the processing result is that the GSN fails to create a*
  PDP context because no free dynamic PDP address is
  available, reading the Create PDP Context Request
  message and checking the version number of the message
  according to the message header thereof, if it is the GTPv1
  version, the Cause value is set as "All dynamic PDP
  addresses are occupied"; otherwise, it is the GTPv0 version,
  and the Cause value is set as "No resources available";

  See at least 3GPP Release 1999, page 19, section

  7.3.2, Lines 1-26. Regarding *"reading the Create PDP*

  Context Request message and checking the version number

  of the message according to the message header" see also

  Page 12, Section 6 - GTP Header, Lines 12-16 and further

  Page 76, Section 11.1.1, Lines 5-6.

  Regarding limitation *", if it is the GTPv1 version, the*

  Cause value is set as "All dynamic PDP addresses are

  occupied"", see at least 3GPP Release 1999, page 19,

  section 7.3.2, Lines 4-5, and Line 8. While the Cause Value

  "No resources available" also referred to the lack of

  unoccupied PDP addresses, however, 3GPP Release 1999

  also recites a specific Cause Value of "All dynamic PDP

  addresses are occupied" to reflect that all dynamic PDP

  addresses are occupied. Thus it is obvious to one of

ordinary skill in the art that using the cause value "All

dynamic PDP addresses are occupied" will accurately reflect

the status at the receiving node, as opposed to the general

statement of "No resources available".

Regarding limitation "*otherwise, it is the GTPv0*

version, and the Cause value is set as "No resources

available." See at least 3GPP Release 1999, Page 76,

Section 11.1.1, Lines 5-6. 3GPP Release 1999 does not

specifically recites possible cause values from GTPv0.

However 3GPP Release 1997 discloses a list of possible

cause values, which contains Cause Value "No resources

available" but does not have "All dynamic PDP addresses

are occupied", See 3GPP Release 1997, Page 17, Section

7.5.2, Lines 6-16. Since GTPv0 is to be used whenever the

incoming message of the same version is in GTPv0, a

response of "No resources available" is to be generated

when no PDP addresses are available. Both 3GPP Release

1999 and Release 1997 teaches communication between

GSN nodes, thus it would have been obvious to one of

ordinary skill in the art to combine the cited disclosures as

GTPv0 is known to one of ordinary skill in the art at the time

3GPP Release 1999 is made.

2E) if the processing result is that the GSN fails to

create a PDP context because there is no enough memory

available, reading the Create PDP Context Request

message and checking the version number of the message

according to the message header thereof, if it is the GTPv1

version, the Cause value is set as "No memory is available";

otherwise, it is the GTPv0 version, and the Cause value is

set as "No resources available";

See at least 3GPP Release 1999, page 19, section

7.3.2, Lines 1-26 and, regarding *"reading the Create PDP*

Context Request message and checking the version number

of the message according to the message header" see also

Page 12, Section 6 - GTP Header, Lines 12-16 and further

Page 76, Section 11.1.1, Lines 5-6.

As to the limitation *if it is the GTPv1 version, the*

Cause value is set as "No memory is available", see at least

3GPP Release 1999, page 19, section 7.3.2, Lines 4-5, and

Line 9. While the Cause Value "No resources available" also

referred to the unavailability of memory, however, 3GPP

Release 1999 also recites a specific Cause Value of "No

memory available" to reflect that the status of having no

memory available. Thus it is obvious to one of ordinary skill

in the art that using the cause value "No memory available"

will accurately reflect the status of the receiving node, as

opposed to the general statement of "No resources

available".

Regarding limitation *"otherwise, it is the GTPv0*

version, and the Cause value is set as "No resources

available." See at least 3GPP Release 1999, Page 76,

Section 11.1.1, Lines 5-6. 3GPP Release 1999 does not

specifically recites possible cause values of GTPv0.

However 3GPP Release 1997 discloses a list of possible

cause values, which contains Cause Value *"No resources*

available" but does not have "No memory available", see

3GPP Release 1997, Page 17, Section 7.5.2, Lines 6-16.

Since GTPv0 is to be used whenever the incoming message

of the same version is in GTPv0, a response of *"No*

resources available" is to be generated when no PDP

addresses are available. Both 3GPP Release 1999 and

Release 1997 teaches communication between GSN nodes,

thus it would have been obvious to one of ordinary skill in the

art to combine the cited disclosures as GTPv0 is known to

one of ordinary skill in the art at the time 3GPP Release

1999 is made.

- *2F) if the processing result is that the GSN fails to create a*

  PDP context due to reasons other than the above, checking

the version number and setting the Cause value according to

the existing descriptions in the specifications of the GTPv0

or GTPv1 version.

See at least 3GPP Release 1999, page 19, section

7.3.2, Lines 1-26 and, regarding *"reading the Create PDP*

Context Request message and checking the version number

of the message according to the message header" see also

Page 12, Section 6 - GTP Header, Lines 12-16 and further

Page 76, Section 11.1.1, Lines 5-6.

As to Claim 7:

The processing method according to claim 3 wherein the GSN

comprises <u>a Gateway GPRS Supporting Node (GGSN) or a Serving</u>

<u>GPRS Support Node (SGSN)</u>.

See 3GPP Release 1999, Page 19, Line 1.

As to Claim 8:

The processing method according to claim 4 wherein the GSN

comprises a <u>Gateway GPRS Supporting Node (GGSN) or a Serving</u>

<u>GPRS Support Node (SGSN)</u>.

See 3GPP Release 1999, Page 19, Line 1.

Conclusion

Any inquiry concerning this communication or earlier communications from

the examiner should be directed to QUAN M. HUA whose telephone number is

(571)270-7232. The examiner can normally be reached on Monday through Friday - 8:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ramesh Patel can be reached on (571)272-3688. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/QUAN M HUA/
Examiner, Art Unit 4146

/Ramesh B. Patel/
Supervisory Patent Examiner, Art Unit 4146